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American Petroleum Institute
1220 L Street, Northwest
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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 14, No. 6

JULY 18, 1990

JUNE 1990

SUMMARY

Total imports as a percentage of domestic deliveries reached a new first-half high of nearly 50 percent in the first six months of 1990. Despite a partly weather-related decline in deliveries, the continued drop in domestic crude oil production, combined with a strong build-up in crude oil inventories, put the percentage at 49.9 percent. This surpassed the previous high for a half year of 48.8 percent, set in the first six months of 1977. June's imports amounted to 52.3 percent of deliveries.

Since the first half of 1985, imports have risen nearly 80 percent or 3.7 million B/D. Even adjusting for differences in inventory patterns between those two years—this year's first half imports of 8.4 million B/D, in particular, were an estimated 0.7 million B/D above what would have been needed to satisfy current deliveries and fulfill typical inventory patterns—imports in the first six months of 1990 would still have been more than half again as large as five years earlier.

Between 1985 and 1988, growing consumption's contribution to the rise in imports was roughly twice that of the decline in domestic crude oil output. But with deliveries flat in 1989 and declining so far in 1990, and with the reversal of Alaskan output's previous upward trend having led to an acceleration in the decline in domestic crude oil output, the roles of these two factors have changed. Falling domestic crude oil production has become the main force at work in expanding the gap between domestic supply and demand.

Domestic production fell nearly 6 percent for the first half versus a year ago to 7.3 million B/D, down nearly 20 percent or 1.7 million B/D from first half 1985—and the lowest level in 29 years. Lower 48 production fell 6.3 percent, or 370 thousand B/D to 5.5 million B/D, the lowest level in nearly 40 years. Alaska's production, which accounts for about one fourth of domestic crude oil output, fell about 90 thousand B/D for the first half.

Deliveries for the first half declined 2.5 percent. Unusually warm weather early in the year was partly responsible, without which the decline would have been an estimated 1.5 percent. Except for a 3.3 percent increase for kerosine jet fuel, all other major products declined. Gasoline deliveries fell 1.1 percent, while distillate deliveries fell 3.3 percent, and residual fuel oil, 10.5 percent. For June, total deliveries fell 1.6 percent, with deliveries of all major products except residual fuel oil sharing in the drop.

Refinery activity, which had been down slightly versus a year ago in recent months, began to pick up in June. Input to distillation units rose from 13.5 million B/D in May to 13.9 million B/D in June, though input was still down 1.4 percent versus a year ago. Gasoline output, after averaging about 6.7 million B/D in recent prior months, rose steadily during June, ending the month at levels over 7.3 million B/D and approaching last summer's peak levels.

Total inventories rose another 10 million barrels during June. Crude oil stocks, however, which had risen 43 million barrels between the beginning of the year and the end of May, held nearly steady at 383 million barrels.

PRODUCT SUPPLIED[1]

Gasoline

DELIVERIES WEAKER THAN TRAVEL SUGGESTS.

Gasoline deliveries, already down slightly versus last year for the first five months, fell an unusually large 3.1 percent for June. This brought the decline for the first half to 1.1 percent. Gasoline deliveries have shown little strength for much of the first half, but the greater weakness of the past month or two is seemingly at variance with trends suggested by other indicators of consumption.

The slower growth of the economy might suggest smaller increases in travel, but traffic data as of yet have not borne this out. For last year as a whole, miles traveled had risen 2.8 percent, and (because of fuel efficiency gains related to vehicle fleet turnover) gasoline deliveries were flat. The latest data on travel for this year show a still-healthy 3.2 percent increase for April and a 3.4 percent rise for the year to date. Even if it should turn out that the rate of increase slowed for more recent months, the first half's increase in miles traveled would still work out to close to last year's average increase. Thus, it would seem that, unless the traffic data have been overstating travel growth, gasoline consumption has not been quite as weak as deliveries data suggest.

API ESTIMATES

	JUNE		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.2	(1.6)	16.9	(2.5)
Crude production[2]	7.1	(7.3)	7.3	(5.9)
Total imports[3]	9.0	13.6	8.4	7.2
Stocks (million bbl)[3]	1,105	6.7	na	na

It is possible that part of the unusual weakness in deliveries over the past month or two is related to the effects on travel of unusually heavy rains and extended flooding, particularly in the eastern half of the country. May was one of the wettest months of the past hundred years for the northeast and central U.S., and in June, some parts of the Midwest experienced as much as 5 to 7 inches of rain more than normal.

Distillates

WARM WEATHER CONTRIBUTES TO FIRST HALF DROP.

Distillate deliveries fell 3.3 percent for the first half. While the first quarter's 4.6 percent drop was largely the result of some of the warmest first-quarter weather in decades, the second quarter's 1.7 percent decline seems less readily explainable in terms of consumption-related factors. Transportation usage, which has been the main contributor to growth in distillate consumption over the past several years, still appears to be up slightly so far this year. Continued, though moderate, growth in the economy suggests at least some increase for on-highway diesel. Rail traffic for the year to date has also been up an estimated 3.5 percent. Furthermore, June's 1.3 percent decline in deliveries was against deliveries a year ago roughly 100 thousand B/D above trend; if compared against a figure more in line with last year's trend, deliveries in June would have risen about 2 percent.

Distillate deliveries fluctuate more than it would seem that underlying consumption would from month to month, obscuring underlying trends at times. Thus, though it is possible that consumption has weakened more than is apparent from other indicators, it appears more likely that the second quarter's decline exaggerates the weakness of distillate consumption. If this is the case, and adjusting for the warmer weather earlier in the year, the trend of distillate consumption has probably been one of marginal growth.

Residual Fuel Oil

DOWN FOR THE HALF, BUT UP IN JUNE.

Residual fuel oil deliveries rose by more than 8 percent in June after falling during each of the first five months of the year. The June reversal of a downward trend which has persisted since last August accompanied hotter weather, lower residual fuel prices and more limited hydroelectric generating capability than the same month a year ago. Despite the June growth, product supplied was down 5.6 percent during the quarter and 10.5 percent during the first half of the year, due primarily to factors in the electric utility industry.

Throughout much of the country, weather conditions were hotter than normal in June. The heat wave across the South and Midwest and an accompanying decline in hydroelectric generation are believed to have added to residual fuel demand for the month. Cooling degree days were up more than 15 percent nationwide versus last June. Despite the hotter-than-normal month, the weather was otherwise generally moderate during the first half of the year, contributing to an overall softening in electricity demand growth.

The effects of more sluggish electricity demand growth so far in 1990 have not been distributed uniformly among fuel groups. Thanks to added and restored generating capacity over the past year, the nuclear segment gained market share at the expense of all three fossil fuel groups. Of fossil-fired generation, residual fuel experienced losses relative to natural gas, due both to larger price differentials between the two fuels early in the year and better-than-usual gas availability accompanying mild first quarter weather. These two factors are believed to have encouraged fuel switching by utilities and industrial users with such capability.

Domestic bunker demand is believed to have been slowed by relatively high U.S. prices early in the year compared with foreign ports, but buoyed by growing ocean-borne foreign trade. Increasing U.S. price competitiveness and (somewhat ironically) increasing U.S. imports of petroleum are believed to have aided bunker fuel demand. More so in terms of tonnage than in terms of dollar value, crude oil and petroleum products represent a very large share of all ocean-borne imports. As a point of reference, the Maritime Administration reported that these imports represented nearly 65 percent of all ocean-borne import tonnage in 1987. With petroleum imports rising by more that 30 percent between June 1987 and June 1990, however, that share is no doubt larger.

Unfortunately, tracking bunker fuel demand has become more difficult since the Commerce Department ceased publishing its report on bunker fuel volumes and expenditures (report FT810). Without this report, there is little in the way of current information available on bunker fuel volumes.

Kerosine Jet Fuel

DELIVERIES GROWTH FALLS SHORT OF TRAFFIC INCREASE.

Deliveries of kerosine jet fuel were essentially flat in June, but ended the second quarter up 8.5 percent and the first six months of the year up a moderate 3.3 percent. For the fifth time in the past six months, growth in kerosine jet fuel deliveries fell short of growth in miles flown, which was estimated at 6 percent in June and about 7-8 percent over the first two quarters.

Month-to-month divergence between the growth rates of aircraft miles and kerosine jet fuel deliveries is often likely the result of changes in non-primary jet fuel inventories. Ordinarily, however, the two growth rates would be expected to move more in tandem than they have so far in 1990. A small portion of the persistent gap may be attributable to compositional shifts in flight destinations. As was the case throughout much of the 1980s, growth in international travel has surpassed that of domestic travel so far in 1990, with trans-Pacific travel believed to be seeing the heaviest growth. These flights typically employ larger bodied aircraft (which are more fuel efficient on a seat-mile basis). Furthermore, international flights generally require refueling domestically on only one leg of the flight rather than two.

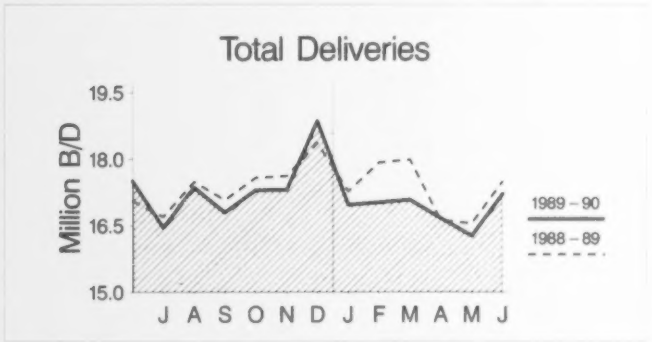
The compositional shifts in air travel do not, however, explain the entirety of the estimated 4 percent gap between the two growth rates seen over the first half of the year. While international travel during the first six months of 1990 increased at double digit rates, the increase in international seat miles over that interval represents a relatively small portion of the total airline seat miles (about 2.5 percent). It has been posited that greater price volatility in jet fuel markets since December has encouraged non-primary inventory shifts, and may be responsible for some of the short term divergence in growth rates.

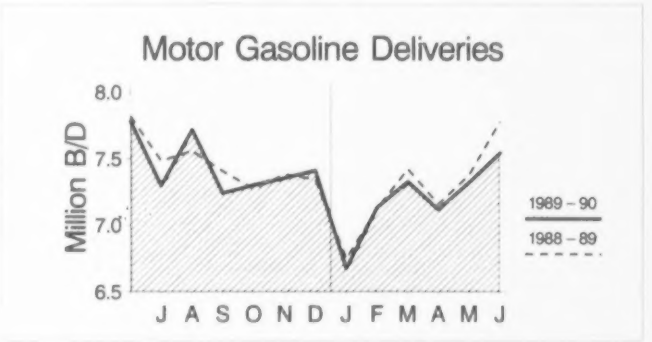
Other Oils

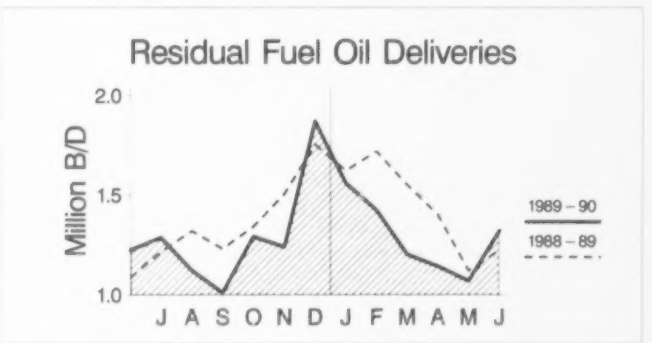
DECLINE MODERATES IN RECENT MONTHS. Though the 3.5 percent decline in deliveries of "other oils" in the first half matched that of last year's second half, this year's decline moderated between the first and second quarters.

For the first quarter, deliveries of "other oils" fell 6.3 percent, or 4 to 5 percent on a weather-adjusted basis. Second quarter deliveries slipped only 0.4 percent. Declines for LPGs appear to have moderated in recent months, though part of this represents a rebound in propane deliveries' growth which had been depressed by the first quarter's warm weather.

The rate of decline in ethane deliveries, however, also appears to have lessened, though petrochemical feedstock preferences still lean towards heavier streams. Deliveries for liquid feedstocks (gasoil and naphtha) have actually risen about 7 percent over a year ago through April, the latest data available. On the other hand, asphalt deliveries, which had gotten a boost in the first quarter because of better-than-average weather for road work, likely suffered in the second quarter versus a year ago because of the heavy rains.







SUPPLY [1/]

Production

CRUDE OIL OUTPUT LOWEST IN 29 YEARS Domestic crude oil production during the first half fell nearly 6 percent to 7.3 million B/D —the lowest level in 29 years and nearly one fourth below the peak annual level of 9.6 million B/D in 1970. More than two thirds of that decline has taken place in the past five years. The first half's decline in the lower 48 was 6.3 percent, and Alaska, 4.7 percent.

For the lower 48 alone, production slipped to 5.5 million B/D—the lowest level in nearly 40 years. An upward revision in 1989 data from the Department of Energy makes it less apparent that this year's production in the lower 48 has been declining at a lesser rate than last year. The first half 1990 decline rate, 370 thousand B/D as now computed, is only marginally less than the 385 thousand B/D decline for all of last year—though estimated production levels since the beginning of the year have remained relatively steady.

Alaskan crude oil output, which had already reversed its previous upward trend in 1989, receded another 90 thousand B/D in this year's first half. June's production dropped to 1.6 million B/D from levels averaging about 1.8 million B/D earlier in the year, due in part to this summer's special projects to increase gas and water handling capability and carry out overall maintenance. In the year-to-year comparison for the first half, this was partly offset by the temporary dip in Alaskan production in the spring of 1989 due to traffic restrictions following the tanker accident near Valdez. Thus, without these special factors, the decline in Alaskan production would still have been roughly 100 thousand B/D so far this year.

Imports

TOTAL IMPORTS AT 50 PERCENT FOR FIRST HALF. Total imports in the first half reached 8.4 million B/D, up 3.7 million B/D or nearly 80 percent from the same period five years ago—and amounting to nearly 50 percent of domestic deliveries, the highest share ever for a similar period. Roughly 0.7 million B/D of the first half's imports represented additions to inventories beyond typical patterns—partly reflecting restocking early in the year following December's unusually strong,

weather-related demand, and more recently, active acquisition of crude oil supplies beyond immediate needs.

However, even adjusted for differences in inventory patterns, imports during this year's first half would still have been half again as large as for the same period in 1985. June's imports rose to 9.0 million B/D, the highest monthly level since January, and amounted to 52.3 percent of the month's deliveries.

Product imports slipped about 40 thousand B/D or 1.7 percent for the first half, mainly the result of a 142 thousand B/D drop in residual fuel oil imports. Imports of finished gasoline and components were mostly down during the early part of the year, but have been stronger in the most recent two months. June's imports of gasoline and components, though less than May's unusually high level, still exceeded half a million B/D. Imports of finished gasoline alone were up by 23 thousand B/D to 409 thousand B/D for June.

Refinery Operations

GASOLINE OUTPUT PICKING UP DURING JUNE.

Input to distillation units, which had been up 1.7 percent for the first quarter, slipped by 0.4 percent during the second. Though in June, input rose from May's 13.5 million B/D to nearly 13.9 million B/D, the highest in nine months, it was still 1.4 percent below a year ago. Utilization of reported capacity averaged 88.9 percent for the month; for capacity actually in operation, utilization was running at an estimated 92-93 percent, compared with peak levels in the past few years of around 93 percent or slightly above.

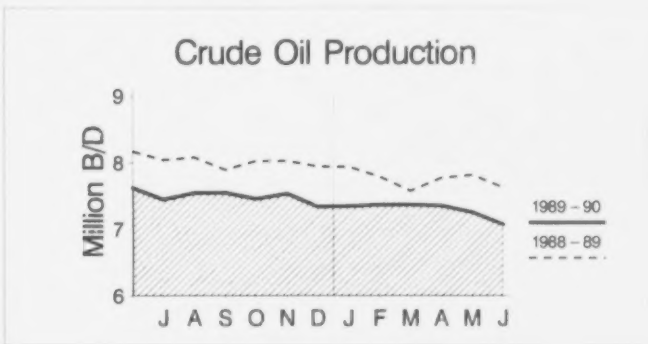
Though the second quarter's year-to-year decrease in input was partly in response to weaker deliveries, complications at some refineries have also played a role. Gasoline output, which had been up 1.3 percent in the first quarter, has been down in more recent months. Refinery problems and delayed turnarounds had reduced effective gasoline production capability for much of the spring by perhaps 300 to 400 thousand B/D, but apparently capability has been recovering.

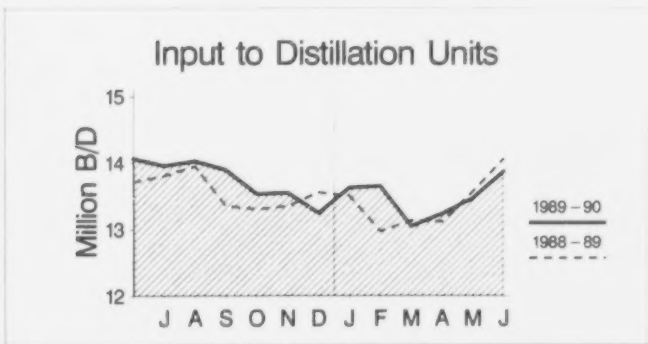
After averaging around 6.7 million B/D over the past several months, gasoline output rose steadily over the month of June to average 7.1 million B/D for the month as a whole. At month end, gasoline production was running at over 7.3 million B/D, approaching last summer's peak levels.

Inventories

BUILD IN CRUDE TAPERS OFF IN JUNE.

At the end of June, total stocks stood at over 1.1 million barrels, 70 million barrels above a year ago and the highest level in close to four years. Three-fourths of the year-to-year rise was in crude oil inventories. Crude stocks, which had risen 43 million barrels between the beginning of the year and the end of May, remained nearly level in June at 383 million barrels. Gasoline inventories also held steady during June, ending the month at 215 million barrels. This compares with a range of 210 to 230 million barrels at the end of the previous five Junes.





1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 587 million barrels as of June 30, 1990).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	JUNE			YEAR-TO-DATE		
	1990[1]	1989[2]	% Change	1990[3R]	1989[2]	% Change
Products Supplied:						
Total motor gasoline	7,541	7,780	(3.1)	7,184	7,267	(1.1)
Finished leaded motor gasoline/*	399	916	(56.4)	429	961	(55.4)
Finished unleaded motor gasoline/*	7,142	6,864	4.1	6,755	6,306	7.1
Naphtha-jet	170	214	(20.6)	182	204	(10.8)
Kerosine-jet	1,285	1,286	(0.1)	1,289	1,248	3.3
Distillate fuel oil	2,962	3,002	(1.3)	3,076	3,180	(3.3)
Residual fuel oil	1,322	1,223	8.1	1,285	1,436	(10.5)
All other oils[4]	4,046	4,088	(1.0)	3,962	4,104	(3.5)
Reclassified/[5]	-114	-96	18.8	-110	-139	(20.9)
Total domestic products supplied	17,212	17,497	(1.6)	16,868	17,300	(2.5)
Exports	821	975	(15.8)	808	844	(4.3)
Total products supplied	18,033	18,472	(2.4)	17,676	18,144	(2.6)
Supply:						
Domestic production:						
Crude oil[6]	7,065	7,624	(7.3)	7,292	7,752	(5.9)
Natural gas liquids	1,400	1,507	(7.1)	1,502	1,621	(7.3)
Other supply[7]	894	877	1.9	1,028	904	13.7
Total domestic supply	9,359	10,008	(6.5)	9,822	10,277	(4.4)
Imports:						
Crude oil, tota[8]	6,584	5,920	11.2	6,115	5,508	11.0
Canadian	660	673	(1.9)	617	648	(4.8)
Other	5,924	5,247	12.9	5,498	4,860	13.1
Products, total	2,417	2,002	20.7	2,310	2,349	(1.7)
Residual fuel oil	580	533	8.8	564	706	(20.1)
Other	1,837	1,469	25.1	1,746	1,643	6.3
Total imports	9,001	7,922	13.6	8,425	7,857	7.2
Total supply	18,360	17,930	2.4	18,247	18,134	0.6
Stock change, all oils	327	-542	*****	571	-10	*****
Refinery Operations						
Input to crude oil distillation units	13,874	14,067	(1.4)	13,481	13,399	0.6
Operable capacity	15,614	15,698	(0.5)	15,549	15,679	(0.8)
Refinery utilization (%)[9]	88.9	89.6	(0.8)	86.7	85.5	1.4
Crude oil runs	13,674	13,905	(1.7)	13,320	13,226	0.7

Stocks (millions bbls.)	1990		1989[2]	% Change from	
	Jun. 30[10]	May. 31[10]	Jun. 30	Previous Month	Year Ago
Crude oil[8]	383.3	384.4	331.3	(0.3)	15.7
Unfinished oils	115.0	115.2	113.7	(0.2)	1.1
Total motor gasoline/**	214.8	216.5	216.4	(0.8)	(0.7)
Finished leaded motor gasoline/*	10.9	11.7	24.9	(6.8)	(56.2)
Finished unleaded motor gasoline/*	165.2	165.7	153.1	(0.3)	7.9
Naphtha-jet	6.4	6.6	6.2	(3.0)	3.2
Kerosine-jet	41.7	42.2	38.4	(1.2)	8.6
Distillate fuel oil	110.8	104.0	99.6	6.5	11.2
Residual fuel oil	44.1	45.9	44.1	(3.9)	0.0
All other oils	188.8	180.3R	186.2	4.7	1.4
Total all oils	1,104.9	1,095.1R	1,035.9	0.9	6.7

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-April, DOE, May-June, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	2ND QUARTER		
	1990[1]	1989[2]	% Change
Products Supplied:			
Total motor gasoline	7,326	7,439	(1.5)
Finished leaded motor gasoline/*	420	917	(54.2)
Finished unleaded motor gasoline/*	6,906	6,522	5.9
Naphtha-jet	180	213	(15.5)
Kerosine-jet	1,279	1,179	8.5
Distillate fuel oil	2,925	2,977	(1.7)
Residual fuel oil	1,176	1,246	(5.6)
All other oils[3]	3,938	3,953	(0.4)
Reclassified[4]	-113	-122	(7.4)
Total domestic products supplied	16,711	16,885	(1.0)
Exports	812	858	(5.4)
Total products supplied	17,523	17,743	(1.2)
Supply:			
Domestic production:			
Crude oil[5]	7,225	7,738	(6.6)
Natural gas liquids	1,470	1,601	(8.2)
Other supply[6]	915	897	2.0
Total domestic supply	9,610	10,236	(6.1)
Imports:			
Crude oil, total/[7]	6,186	5,753	7.5
Canadian	648	640	1.3
Other	5,538	5,113	8.3
Products, total	2,226	2,125	4.8
Residual fuel oil	536	584	(8.2)
Other	1,690	1,541	9.7
Total imports	8,412	7,878	6.8
Total supply	18,022	18,114	(0.5)
Stock change, all oils	499	371	*****
Refinery Operations			
Input to crude oil distillation units	13,525	13,585	(0.4)
Operable capacity	15,575	15,692	(0.7)
Refinery utilization (%)[8]	86.8	86.6	0.2
Crude oil runs	13,356	13,422	(0.5)

Stocks (millions bbls.)	2ND QUARTER		
	1990/[9]	1989[2]	% Change
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Unfinished oils	115.0	113.7	1.1
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All other oils	188.8	186.2	1.4
Total all oils	1,104.9	1,035.9	6.7

/1 Source: U.S. Department of Energy, April; May-June, API.
/2 Source: U.S. Department of Energy.
/3 Includes crude losses.
/4 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
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/8 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/9 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.